

IN THE CLAIMS:

1. (Previously Amended) A method for changing channel information in a digital TV receiver, the method comprising:

determining a channel information of being changed from a broadcasting signal received at every preset time interval and storing the changed channel information; and

comparing the stored changed channel information and channel information stored already, for updating the channel information.

C1 2. (Previously Amended) The method of claim 1, wherein the determining step further comprises determining a version of the received broadcasting signal of being changed.

3. (Previously Amended) The method of claim 2, wherein determining a version change of the received broadcasting signal comprises:

parsing PAT information from a transport stream; and

checking a version number in the parsed PAT information to determine the version change.

4. (Previously Amended) The method of claim 1, further comprises determining a ^{CH} repeater of being switched if it is found that the channel information is changed, to store the changed channel information.

5. (Previously Amended) The method of claim 4, wherein the step of determining a repeater of being switched further comprises:

storing the changed channel information if it is found that the repeater is not changed; and

maintaining existing channel information if it is found that the repeater is changed.

C¹ 6. (Previously Amended) The method of claim 1, wherein the step of storing the changed information further comprises:

starting a program association table (PAT) parsing;

determining the PAT parsing conducted presently of being an initial PAT parsing;

storing each channel information in a first data base to form a first channel list, if it is found that the PAT parsing is the initial PAT parsing as a result of the determination; and

clearing the first channel list, and storing the changed channel information in a second data base, to form a second channel list, if it is found that the PAT parsing is not the initial PAT parsing as a result of the determination.

7. (Previously Amended) The method of claim 1, wherein the determining step further comprises:

determining the PMT parsing conducted presently of being an initial program map table (PMT) parsing;

storing PMT information in a first data base, and providing a PMT completion signal, if it is found that the PMT parsing conducted presently is the initial PMT parsing as a result of the determination;

if it is found that the PMT parsing conducted presently is not the initial PMT parsing as a result of the determination, storing the changed PMT information in a second data base; and

C comparing a first channel list and a second channel list, to check added or canceled channel, updating the channel information upon completion of the channel check, and providing a PMT completion signal.

8. (Previously Amended) The method of claim 7, wherein the determining step further comprises providing a program guide message (PMM) information processing command after storing the PMT information in the first data base.

9. (Previously Added) A method for changing channel information in a digital TV receiver, the method comprising:

determining, at preset time intervals, whether channel information has been changed by analyzing a received broadcast signal;

storing a recent version of the channel information if it is determined that the channel information has been changed; and

updating the channel information by comparing the stored recent version of the channel information with a previous version of the channel information.

C 10. (Previously Added) The method of claim 9, wherein it is determined whether channel information has been changed by analyzing a version of the received broadcast signal.

11. (Previously Added) The method of claim 10, wherein analyzing a version of the received broadcast signal comprises:

parsing program association table (PAT) information from a transport stream; and

checking a version number in the parsed PAT information to determine if the version of the received broadcast signal has changed.

12. (Previously Added) The method of claim 10, wherein determining whether channel information has changed further comprises determining if a repeater has been switched if it is determined that a version of the received broadcast signal has changed.

13. (Previously Added) The method of claim 12, wherein the step of determining whether channel information has changed further comprises:

determining that channel information has changed if it is found that the repeater has not been switched; and

determining that channel information has not changed if it is found that the repeater has been switched.

14. (Previously Added) The method of claim 9, wherein the step of storing a recent version of the channel information comprises:

starting a program association table (PAT) parsing;

determining whether a present PAT parsing is an initial PAT parsing;

storing information on each channel in a first data base to form a first channel list, if it is determined that the present PAT parsing is an initial PAT parsing; and

clearing the first channel list, and storing the recent version of the channel information in a second data base, to form a second channel list, if it is found that the present PAT parsing is not an initial PAT parsing.

15. (Previously Added) The method of claim 14, further comprising:

providing a program map table (PMT) parsing start command upon completion of the PAT parsing;

determining whether a present PMT parsing is an initial (PMT) parsing;

storing PMT information in the first data base, and providing a PMT completion signal, if it is determined that the present PMT parsing is an initial PMT parsing;

if it is found that the present PMT parsing is not an initial PMT parsing, storing PMT information in the second data base; and

comparing the first channel list with the second channel list to check added or canceled channels;

updating the channel information upon completion of the comparison; and

providing a PMT completion signal.

16. (Previously Added) The method of claim 15, further comprising providing a program guide message (PMM) information processing command after storing the PMT information in the first data base.

17. (Previously Added) The method of claim 13, wherein the step of storing a recent version of the channel information comprises:

storing the recent version of the channel information if it is determined that the channel information has changed; and

maintaining a previous version of the channel information if it is determined that the channel information has not changed.

18. (Previously Added) A computer program embodied on a computer-readable medium for changing channel information in a digital TV receiver, wherein the computer program, when executed by a computer, performs the steps of:

determining, at preset time intervals, whether channel information has been changed by analyzing a received broadcast signal;

storing a recent version of the channel information if it is determined that the channel information has been changed; and

updating the channel information by comparing the stored recent version of the channel information with a previous version of the channel information.

19. (Previously Added) The computer program of claim 18, wherein the step of determining, at preset time intervals, whether channel information has been changed comprises:

demultiplexing a transport stream to extract program association table (PAT) information;

C¹ reading a version number from the PAT information; and

determining if the read version number is different than a previous version number.

20. (Previously Added) The computer program of claim 19, further comprising:

determining if a repeater has been switched;

determining that channel information has been changed, if a repeater has not been switched and the read version number is different than a previous version number; and

determining that channel information has not been changed, if a repeater has been switched and the read version number is different than a previous version number.

21. (Previously Added) The computer program of claim 18, wherein the step of storing a recent version of the channel information if it is determined that the channel information has been changed comprises:

starting a program association table (PAT) parsing;

determining whether a present PAT parsing is an initial PAT parsing;

storing information on each channel in a first data base to form a first channel list, if it is determined that the present PAT parsing is an initial PAT parsing; and

clearing the first channel list, and storing the recent version of the channel information in a second data base, to form a second channel list, if it is found that the present PAT parsing is not an initial PAT parsing.

22. (Previously Added) The computer program of claim 21, wherein the step of updating the channel information comprises:

initiating a program map table (PMT) parsing;

determining whether a present PMT parsing is an initial (PMT) parsing; storing PMT information in the first data base, and providing a PMT completion signal, if it is determined that the present PMT parsing is an initial PMT parsing;

if it is found that the present PMT parsing is not an initial PMT parsing, storing PMT information in the second data base;

comparing the first channel list with the second channel list to check added or canceled channels;

updating the channel information upon completion of the comparison; and

providing a PMT completion signal.

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23. (Previously Added) The computer program of claim 22, further comprising providing a program guide message (PMM) information processing command after storing the PMT information in the first data base.
